



THINKSTOCK

Dangerous flavorings

If you understand the composition of sugar substitutes and the risks they pose, you'll see why they are best avoided.

BY THERESA DALE, PHD, CCN, NP

THE INCIDENCE OF CHILDHOOD OBESITY HAS MORE THAN TRIPLED in the past 30 years, posing both immediate and long-term health implications.¹ In the search for causes of this epidemic, sugar-substitute chemicals have arisen as a possible culprit. Taking a closer look, one can conclude that these should not be marketed as safe for human consumption.

From fast food chains to fine restaurants, aspartame is found right next to the salt and pepper, as if it merits being a part of daily life. These potentially hazardous substances are always close at hand. Children are continuously bombarded with continual exposure to foods and drinks containing artificial sweeteners both in TV ads and on children's packaging.

These are powerful substances.

Sugar substitutes can be 600 times sweeter than sugar, and only small amounts are needed to achieve a desired sweetness, but does it satisfy the desire for a sweet flavor? A 1988 study found that individuals who consume non-nutritive sweeteners crave sugar more than those who don't.²

Researchers suggest that because artificial sweeteners are much sweeter than table sugar, they increase the desire for sweet flavor. Among the most commonly used sugar substitutes are aspartame and sucralose.

The Aspartame Toxicity Information Center submitted an evidence-based docket to the U.S. Food and Drug Administration (FDA), listing more than 92 different health side effects associated with aspartame consumption alone.³ Still, to this date, fine print on packaging and marketing of aspartame

products do not disclose these risks. Side effects can occur gradually, can be immediate, and can be acute.

The road to approval

It's reasonable to ask how this chemical got approved by the FDA.

NutraSweet (a brand name for aspartame) was not approved until 1981, in dry foods, as detailed by former FDA investigator Arthur M. Evangelista.⁴ For more than eight years, the FDA refused to approve it because of the seizures and brain tumors this drug produced in lab animals. The FDA continued to refuse to approve it until former President Ronald Reagan took office and fired the FDA commissioner who was blocking aspartame's approval.

In a political process, Arthur Hull Hayes, Jr., MD, was appointed as commissioner. G.D. Searle pharmaceu-

isobutyl ketone, acetic acid, benzyltriethylammonium chloride, and sodium methoxide, making it unlike anything found in nature.⁹

Furthermore, the manufacturer's website states that "sucralose is made by a multi-step process that starts with ordinary table sugar (sucrose) and replaces three hydrogen-oxygen groups on the sugar molecule with three chlorine atoms. This results in a stable

sweetener that tastes like sugar, but is calorie-free."¹⁰

Splenda.com states that "the sucralose molecule contains three atoms of chlorine, and this is the key to how we intensify the sweetness of sugar and remove the calories." Chlorine, however, is an industrial chemical and has been used in poisonous gas, disinfectants, pesticides, and rubber.¹¹

The effects of digesting and

absorbing sucralose are not clear due to a lack of long-term studies on humans. Sucralose is not yet approved for use in most European countries, where it is still under review.

Splenda also includes a mixture of dextrose and maltodextrin, which are used to increase bulk and both are carbohydrates that do have calories. The U.S. Department of Agriculture (USDA) reports that 10 grams, i.e., 10 individual packets, of Splenda contain 34 calories.¹² This amount consists of 9 grams of carbohydrates, made up of 8 grams of sugar (dextrose) and 1 gram of starch (maltodextrin).

For comparison, 10 grams of granulated sugar contain 39 calories.¹³ This is only six calories more than the equivalent weight of Splenda.

Given that Splenda is found in many products used in cooking, it can be possible to consume 1 cup or more each day. That amount would contain 96 calories and 32 grams of carbohydrates. For people with diabetes, that is a significant amount of carbohydrates, and for people watching their weight, this can be a problem. Consuming an additional 100 calories a day can result in a weight gain of 10 pounds per year.

Patients looking to achieve their health objectives should avoid non-nutritive sweeteners because they offer little in the way of dietary advantages and potentially pose serious side effects. ☹



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To view the references for this article, visit ChiroEco.com/daleref.

post-polio syndrome, Lyme disease, Graves' disease, Meniere's disease, amyotrophic lateral sclerosis, epilepsy, multiple sclerosis, hypothyroidism, and attention deficit disorder.

Moreover, a 2007 review article notes that rats exposed to aspartame *in utero* have a higher risk of cancer over the course of their lives.⁶ This may or may not indicate that using aspartame as an adult will increase the risk of cancer, but it does suggest that the use of aspartame during pregnancy might raise the lifetime cancer risk for an unborn child.

Note that aspartame side effects won't be detected in routine lab tests or X-rays because aspartame changes the ratio of amino acids in the blood, blocking or lowering levels of serotonin, tyrosine, dopamine, norepinephrine, and adrenaline. Further, textbook disorders and diseases may actually be a toxic overload resulting from aspartame poisoning.

An aspartame and sucralose detoxification program is a safe and effective way to reverse symptoms caused by non-nutritive sweeteners.

- Remove all sugar-free products with aspartame and sucralose from the diet.
- Read labels carefully.
- Follow a 30-day dietary cleanse.
- Restore depleted nutrients with a multivitamin supplement.
- Exercise and stretch five days per week and get plenty of rest.
- Eat 75 percent raw foods at every meal.
- Drink seven to eight glasses of water per day.

Sucralose toxicity

According to a grassroots organization, the Sucralose Toxicity Information Center, research findings appear to show a significant reduction in size of the thymus gland, yet "the manufacturer claimed that sucralose was unpleasant for the rodents to eat in large doses and that starvation caused the shrunken thymus glands."⁷

Toxicologist Judith Bellin reviewed studies on rats starved under experimental conditions, and concluded that their growth rate could be reduced by as much as a third without the thymus losing a significant amount of weight (less than 7 percent). The changes were much more marked in rats fed on sucralose. While the animals' growth rate was reduced by between 7 and 20 percent, their thymuses shrank as much as 40 percent.⁸

Sucralose is nothing like sugar even though some marketing implies that it is. It was discovered while a company was trying to create a new insecticide. It may have started out as sugar, but the final product is anything but.

Sucralose is made when sugar is treated with trityl chloride, acetic anhydride, hydrogen chloride, thionyl chloride, and methanol in the presence of dimethylformamide, 4-methylmorpholine, toluene, methyl

CLINICAL CONCERNS

icals hired Donald Runnfeld, former member of the U.S. Congress and Secretary of Defense, to handle the aspartame approval difficulties as a "legal problem rather than a scientific problem."⁴

There was so much opposition to aspartame that an FDA board of inquiry was established, and it recommended against approval of the sweetener. But Hayes overruled his own board of inquiry.

Disturbing side effects

According to Lendon Smith, MD, there is an enormous population suffering from side effects associated with aspartame, yet have no idea why drugs, supplements, and herbs do not relieve their symptoms.⁵ Subsequently, there are users who do not appear to suffer immediate reactions because aspartame builds up in the body over time. Even individuals who do not display a side effect are susceptible to the long-term damage caused by excitatory amino acids, phenylalanine, methanol, and aspartylphenylalanine diketopiperazine.

Here are a few of the adverse reactions and side effects some report from aspartame, by type:

➤ Psychological: depression, irritability, aggression, anxiety, personality changes, insomnia, and phobias

➤ Gastrointestinal: nausea, diarrhea, abdominal pain, and pain when swallowing

➤ Dermatological and allergic: itching without rash, lip and mouth reactions, hives, and aggravated respiratory conditions such as asthma

➤ Thoracic: palpitations, tachycardia, shortness of breath, and high blood pressure

➤ Neurologic: epileptic seizures, headaches, migraines and dizziness, unsteadiness, and confusion, memory loss, drowsiness, paresthesia or numbness of the limbs, slurring

➤ Ocular: blindness, decreased vision, blurring, bright flashes, squiggly lines, tunnel vision, eye pain, decreased tears, and exophthalmia

➤ Otic: tinnitus, intolerance of noise, and hearing impairment

➤ Endocrinal: loss of diabetic control, menstrual changes, thinning or loss of hair, weight loss, weight gain, and hypoglycemia

➤ Other: urinary trouble, excessive thirst, and leg edema

These side effects are commonly misdiagnosed because they can mock textbook disease symptoms. Aspartame side effects may mimic or cause common illnesses such as the following: chronic fatigue syndrome, the Epstein-Barr virus,